

**Notice of Allowability**

Application No.

09/652,116

Examiner

Qutub Ghulamali

Applicant(s)

BARNETTE ET AL.

Art Unit

2637

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5/13/2005.
2. ☒ The allowed claim(s) is/are 15-28.
3. ☒ The drawings filed on 16 April 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

## **DETAILED ACTION**

### **Acknowledgement**

1. This Office Action is responsive to the Amendment filed on 05/13/2005.
2. The application has been amended as follows:  
Applicants have cancelled claims 1-14 without traverse.

### ***Allowable Subject Matter***

3. Claims 15-28 allowed.

### **Reasons for Allowance**

4. The following is an examiner's statement of reasons for allowance:

Consider claims 15 and 22, the prior art made of record in combination with other claimed limitations considered as a whole, neither teaches nor suggests the overall combination of a transceiver comprising:

a framer that formats signals within said transceiver;

a bit pump coupled to said framer and having a transmit and receive path including:

a pre-coder couple to said transmitter path that preconditions a transmit signal propagating along said transmit path;

a modulator, coupled to said pre-coder, that reduces a noise associated with said transmit signal;

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an analog-to-digital converter, coupled to said receive path, that converts a receive signal at said bit pump into a digital format;

a re-sampler coupled to said analog-to-digital converter and an oscillator of said bit pump, including:

an interpolation stage, coupled to an input of said re-sampler, that receives a one-bit input signal representing at least a portion of said receive signal and generates a plurality of intermediate samples from at least two input samples associated with said one bit input signal;

a selection stage, coupled to said interpolation stage, that selects one of said plurality of intermediate samples thereby by providing an output sample that corresponds to a phase of said oscillator; and

an echo canceling system coupled between said transmit and receive path, that attenuates an echo in said receive signal; and

a controller that controls an operation of said framer and said bit pump.

Such limitations, as recited in claims 15, and 22, are neither anticipated nor rendered obvious by the art of record.

5. Claims 16-21, 28 and 23-27 respectively are allowed by virtue of their dependency to claims highlighted above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

*Conclusion*

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qutub Ghulamali whose telephone number is (571) 272-3014.

The examiner can normally be reached on Monday-Friday from 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

QG.  
June 20, 2005.



**JAY K. PATEL**  
**SUPERVISORY PATENT EXAMINER**